800XL 256 RAM Upgrade

Best Electronics sold the Wizztronics 256K Ram **bare** Upgrade PCB board to Atari 800XL owners for over 14+ years. Wizztronics 1st released this very popular 800XL Ram Upgrade in 1990. Thousands and thousands of this very popular Wizztronics 800XL Ram upgrade board have been sold and successfully Installed all over the world. But about five years ago, we finally sold out of this popular 800XL Ram upgrade board. At that time Best contacted Wizztronics back then and they said that they were not going to make any more new production runs of the 800XL Ram upgrade board. Because of many many requests from our Best Atari Customers for the WIzztronics 800XL 256K upgrade board still, Mid 2015 Best again approached Wizztronics and this time asked them if **Best Electronics** could **License** / **get the rights** from Wizztronics to make a brand **New** limited upgraded / improved 2016 version of the 800XL Ram upgrade board. They agreed and licensed Best Electronics to make a one time limited production run of a **new improved / upgraded Rev. G** version Wizztronics 800XL.

1. All Gold plated Traces, Gold plated I.C. pads and Gold plated thru holes. The old Rev. F version had tin plated traces and thru holes with no solder mask.

2. Green solder mask on top and bottom sides of the New Rev. G version. Prevents the solder bridges between traces and I.C. pads that the older Rev. F version was subject to. Also will prevent the known problem of the tops of the round diameter header pins shorting out the bottom side traces / solder pads were the 16 pin header was mounted to the bottom side of the Wizztronics 256K PCB board. When the 800XL Ram upgrade board is installed on the Atari 800XL Motherboard, the new Green solder mask on the bottom / under side of the PCB board also prevents the Wizztronics board bottom side traces from shorting out on the tops of the different 800XL vertical mounting electronic components (crystal, resistors, transistors, radial capacitors and filter torrid coils) directly below under the Wizztronics 256K interface install board on the 800XL motherboard.

3. All I.C. locations, Header location, Resistor location, (CO12296 ANTIC chip) 74LS158 on board wire jumper location, solder pads for the 6520 external Ribbon cable connections, U7 wire jumper pad and R1 Ram wire pad are all marked with Gold Letters / Numbers. Lessening the chances of making a external wire connection mistake. These same connection locations will not marked at all on Rev. F version.

4. Rev G version is made out the Newer / Stronger State of the Art F4 PCB board material.

5. The getting impossible to find 16 pin double sided header itself and the 74LS158, 74LS139, and 74LS153 I.C's are already installed / soldered on the new Rev G version. All assembled Rev. G 800XL 256K Ram upgrade interface boards have been 100% tested for proper operation on an Atari 800XL motherboard.

If your Atari 800XL has the CO21697 upgrade Antic chip, the Wizztronics upgrade Kit comes with the populated Wizztronics plug in board set up for that version Antic chip. The Red jumper wire from the Wizztronics board to the #1 ram chip location is supplied (see three pictures above). From the same jumper wire you clip off a short jumper wire to installed on the Wizztronics (74LS158 location, see left pointing sidewise Gold U on the very 1st PCB picture above) board. It also includes a custom made .1 spaced ribbon cable length from the Wizztronics PCB board to the 5 bent up pins on the 6520 I.C. Two different modified non Atari DOS disks (with the 256K Ram disk drivers and other 800XL 256K utilities) is also Included. Original 1990 Wizztronics Installation instructions and a 800XL Motherboard layout print PDF files are at the Best Web site and the exact Best URL down load location is included with the Wizztronics kit. Included on the Wizztronics install instruction page, is Bests Atari 40+ year Super techs install tech tips for the novice Atari hacker on the 800XL motherboard with no I.C. sockets. Wizztronics Populated 256K upgrade PCB board Kit CB101070G $24.95

If your Atari 800XL has the CO12296 older Antic chip, an extra jumper wire (from the Wizztronics board to the Antic chip) is added to the above kit no charge, but you must state you have the CO12296 chip when ordering the above Wizztronics 800XL 256K upgrade kit.

Additional components:

New Japan made 41256K Ram chips $ 3.75 each (8 Ram chips per 800XL motherboard / WIzztronics upgrade)

New 16 Pin double wipe I.C. sockets $ .15 each (8 to 9 required if your motherboard is not fully socketed)

New 40 Pin double wipe I.C. sockets $ .25 each (1 required if your motherboard is not fully socketed)

Newer upgrade Antic chip CO21697 $10.00 (buy if you would like to bypass extra 96 ANTIC install steps / components)

If you have the CO12296 ANTIC chip on your 800XL motherboard, the following extra I.C.'s will have to be purchased and soldered into the Wizztronics PCB Upgrade board itself. See the very top / 1st Wizztronics 256K board picture for these I.C.'s locations.

1 74LS158 I.C. $ .35

1 74LS393 I.C. $ .75

Optional item

3rd different non Atari DOS (with the 256K Ram disk drivers and other 800XL 256K utilities) CB103155 $3.95

Q&A:

Q. **I am an average Atari 800XL user. I mostly play disk and cartridge Atari games on my Atari 800XL. Is the 256K Wizztronics 800XL ram upgrade is something I can use?**

A. **In most cases No. Since most stock Atari game software will not access the new 256K ram bank.**

Q. **In the future, if I change my mind and want to go back to a stock Atari 800XL computer (because I am going sell the Atari**

800XXL, give it to a new Atari 8 bit user and so on), can Wizztronics 265K Ram upgrade be removed easily?

A. Yes there are no cuts to circuit traces or final one way changes to the 800XL Motherboard that can not be easily reversed. This assumes you will save the removed 8, 4164 Ram chips, the removed 33 ohm resistor and removed 74LS158 chip.

Q. **Is there anything special required to access Wizztronics 800XL 256 Ram bank?**

A. **Yes. To access the Wizztronics 800XL 256K Ram bank, requires a special version of the Atari or non Atari DOS (Disk Operating System) disk that has the modified software drivers installed to access the XL / XE larger ram bank. One of the very few stock made Atari programs that will automatically access the larger 800XL extra Ram bank is Atariwriter plus disk based Word Processor program. The Atariwriter Plus software drivers were programmed to access the extra 64K ram bank on the Atari 130XE computers. The same Atariwriter Plus software drivers will also access the Wizztronics 256K Ram banks on the upgraded Wizztronics 800XL computer.**

Q. **If I have one or more of the modified Atari DOS disks and a WIzztronics upgraded 800XL 256K computer what can I now do?**

A. **Many things. You can copy a full Atari floppy disk at one pass / time (standard Atari DOS requires up to 3 disk swaps in and out of the floppy disks (original disk and destination disk) to fully copy any single Atari floppy disk. You can read the full Atari floppy disk contents into to the 256K memory bank and then in a single pass write it to another / different formatted Atari floppy disk.**

If you have several Atari floppy disks full of Atari games (lets say 35 different Atari games total), you could dump / read the complete contents of those 2 Atari Game program disks into

the 800XL 256K Ram bank. Then write a sample Atari 8 bit Basic program that sets up a simple Game menu selection of all of the 35 Atari games how to access them in the 256K Ram bank. Instead of the slow disk loading of an Atari game from a floppy disk, you will get almost an instant load from the 800XL 256K Ram bank.

All changes, updates, upgrades Best Electronics has done on the new improved Rev. G version Wizztronics 800XL Ram upgrade board have been tested and approved by Wizztronics.

The ease of installing the Wizztronics 800XL 256K Ram upgrade board depends on the version Atari 800XL Motherboard you have. Very early (1st generation) made Atari 800XL motherboards had all of the I.C. chips socketed. Atari Taiwan manufacturing did this because all of new state of the art new Atari Custom made chips, Ram chips, CMOS and TTL chips installed on the Atari 800XL motherboard were unknown new chips with no track records / production runs of. Should one or more of the brand new chips used on the 800XL motherboard fail right off or have a built in defect, it made repairing the new very expensive to produce 800XL motherboard, a lot easier to repair along the Atari 800XL production line. You will find on mid production runs of the of the 800XL motherboards you will find a few of the Atari custom chips and different off the shelf support chips were socketed (those socketed Atari made custom chips and standard chips had higher failure rates still). The very last productions runs of the Atari 800XL motherboards, all I.C. chips were soldered direct to the 800XL motherboard because all of the early bugs and problems with all of the I.C. chips were corrected by the end of the 800XL motherboard production runs.

Depending on the version of Atari Antic (older CO12296 or newer CO21697) custom chip installed on your Atari 800XL

motherboard, the CO12296 ANTIC version will require a few extra or less install steps on the Atari 800XL motherboard and on the Wizztronics 800XL plug in board.